

CLAIMS

1. A hard sintered body indexable insert in which a hard sintered body that contains cubic boron nitride by 20 vol % or more is brazed to a seating groove formed at a corner of a tool substrate, and a ridge of the hard sintered body is used as a cutting edge, the hard sintered body indexable insert characterized in that at least a pair of hard sintered bodies or composite hard sintered bodies are disposed on upper and lower surfaces in a thickness direction of the hard sintered body indexable insert; a thickness of a part of the tool substrate between the pair of seating grooves is within a range of 30% to 90% with respect to a thickness of the hard sintered body indexable insert; a length of a cutting edge of the hard sintered body or of the composite hard sintered body is within a range of 0.5 mm to 4.0 mm; and a bonding layer that has been brazed contains 0.5 to 65 wt % Ti and/or Zr and further contains Cu.

2. The hard sintered body indexable insert as recited in Claim 1, wherein the hard sintered body or the composite hard sintered body is 0.8 mm to 1.6 mm in thickness per piece.

3. The hard sintered body indexable insert as recited in Claim 1 or Claim 2, wherein the hard sintered body is bonded directly to the tool substrate through the bonding layer.

4. The hard sintered body indexable insert as recited in any one of Claim 1

through Claim 3, wherein the bonding layer contains 20 wt % to 30 wt % Ti and 20 wt % to 30 wt % Zr, and the remainder of Cu and inevitable impurities.

5. The hard sintered body indexable insert as recited in any one of Claim 1
5 through Claim 3, wherein the bonding layer contains 0.5 wt % to 20 wt % Ti and/or Zr and contains 10 wt % to 40 wt % Cu and the remainder of Ag and inevitable impurities.

6. The hard sintered body indexable insert as recited in any one of Claim 1
10 through Claim 3, wherein the bonding layer contains 0.5 wt % to 10 wt % Ti
✓ and/or Zr, and contains 5 wt % to 20 wt % In and 15 wt % to 35 wt % Cu, and the remainder of Ag and inevitable impurities.

7. The hard sintered body indexable insert as recited in any one of Claim 1
15 through Claim 6, wherein on a surface of the hard sintered body indexable insert, there is formed a coating layer comprising at least one element selected from the group consisting of elements belonging to groups IVa, Va, VIa in the periodic table and elements Al, Si, and B, or at least one compound selected from the group consisting of nitride, carbide, or of oxide at least one metal
20 selected from this group, and their solid solutions.

8. A manufacturing method for manufacturing a hard sintered body indexable insert in which a hard sintered body that contains cubic boron nitride by 20

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